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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/829,214	04/09/2001	David Thomas Dougherty	AMCC4620	8600
25548	7590	06/28/2005	EXAMINER	
DLA PIPER RUDNICK GRAY CARY US, LLP			YAO, KWANG BIN	
4365 EXECUTIVE DRIVE, SUITE 1100				
SAN DIEGO, CA 92121-2133			ART UNIT	PAPER NUMBER

2667

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/829,214

Applicant(s)

DOUGHERTY ET AL.

Examiner

Kwang B. Yao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-15 and 17-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,15 and 17 is/are rejected.
- 7) ☒ Claim(s) 4-14 and 18-26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Moody et al. (US 6,229,886).

Moody et al. discloses a communication system comprising the following features: regarding claim 1, a method for synchronizing timing in a broadband switch that includes a plurality of line cards (Fig. 2, LINE CARD 1, LINE CARD j) for transceiving information packets and a plurality of switch cards (Fig. 2, NETWORK CARD 1, NETWORK CARD 2, ADMINISTRATION CARD 110) for controlling distribution of the information packets between the line cards (Fig. 2, LINE CARD 1, LINE CARD j); the method comprising: forming the plurality of switch cards (Fig. 2, NETWORK CARD 1, NETWORK CARD 2, ADMINISTRATION CARD 110), designating a master switch card (Fig. 2, ADMINISTRATION CARD 110) having a master switch timing reference (Figs. 2 and 3, TIMING) and slave switch cards; synchronizing the plurality of line cards (Fig. 2, LINE CARD 1, LINE CARD j); and synchronizing the plurality of switch cards (Fig. 2, NETWORK CARD 1, NETWORK CARD 2, ADMINISTRATION CARD 110) in response to communications with the line cards (Fig. 2, LINE CARD 1, LINE CARD j); wherein synchronizing the plurality of

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line cards (Fig. 2, LINE CARD 1, LINE CARD j) includes synchronizing line cards (Fig. 2, LINE CARD 1, LINE CARD j) to the master switch timing reference in response to communications with the master switch card (Fig. 2, ADMINISTRATION CARD 110); regarding claim 15, regarding claim 15, a plurality of line cards (Fig. 2, LINE CARD 1, LINE CARD j), each line card (Fig. 3, 100j) having an information port to transmit and receive information packets and a control port to accept commands for controlling the distribution of the information packets, each line card maintaining synchronization in response to timing signals (Figs. 2 and 3, TIMING) communicated through the control port; and a plurality of switch cards (Fig. 2, NETWORK CARD 1, NETWORK CARD 2, ADMINISTRATION CARD 110), each switch card (Fig. 2, NETWORK CARD 1, NETWORK CARD 2, ADMINISTRATION CARD 110) having a control port connected to the plurality of line cards (Fig. 2, LINE CARD 1, LINE CARD j) to send information packet control commands, each switch card maintaining synchronization in response to timing signal (Figs. 2 and 3, TIMING) communications with the line cards (Fig. 2, LINE CARD 1, LINE CARD j) through the control port; the plurality of switch cards (Fig. 2, NETWORK CARD 1, NETWORK CARD 2, ADMINISTRATION CARD 110) including a master switch card (Fig. 2, ADMINISTRATION CARD 110) having a master switch timing reference (Figs. 2 and 3, TIMING) and slave switch cards; and the line cards maintaining synchronization in response to timing signal (Figs. 2 and 3, TIMING) communications with the master switch card. See column 3, line 17 to column 5, line 31.

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3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moody et al. (US 6,229,886) in view of Lee (US 6,760,586).

Moody et al. discloses the claimed limitations above. Moody et al. does not disclose the following features: regarding claim 3, from the plurality of line cards, designating a master line card and slave line cards; and wherein synchronizing a plurality of switch cards in response to communications with the line cards includes synchronizing the slave switch cards to the master switch timing reference in response to communications with the master line card; regarding claim 17, wherein the plurality of line cards include a master line card and slave line cards; and wherein the slave switch cards maintain synchronization in response to timing signal communications with the master line card.

Lee discloses a communication system comprising the following features: regarding claim 3, from the plurality of line cards, designating a master line card (Fig. 2, MASTER LINE CARD 40-1; Fig. 3, BOX 31) and slave line cards (Fig. 2, SLAVE LINE CARD 40-2, 40-N; Fig. 3, BOX 31); and wherein synchronizing a plurality of switch cards in response to communications with the line cards includes synchronizing the slave switch cards (Fig. 2, BACKPLANE 50) to the master switch timing reference in response to communications with the master line card (Fig. 2, MASTER LINE CARD 40-1; Fig. 3, BOX 31); regarding claim 17, wherein the plurality of line cards include a master line card (Fig. 2, MASTER LINE CARD 40-

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1; Fig. 3, BOX 31) and slave line cards (Fig. 2, SLAVE LINE CARD 40-2, 40-N; Fig. 3, BOX 31); and wherein the slave switch cards (Fig. 2, BACKPLANE 50) maintain synchronization in response to timing signal communications with the master line card (Fig. 2, MASTER LINE CARD 40-1; Fig. 3, BOX 31). See column 3, line 36 to column 4, line 46. It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Moody et al., by using the features, as taught by Lee, in order to provide less complicated and less expense communication system. See Lee column 2, lines 5-15, and column 4, lines 58-65.

Allowable Subject Matter

5. Claims 4-14, 18-26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

6. Applicant's arguments filed 2/25/05 have been fully considered but they are not persuasive.

On page 12, third paragraph, Applicant argues that no reference in Moody et al. could be found to master and slave network cards, to any network card having a master switch timing reference, or to any designation of any network card as having functions that the other network cards do not have; the administration card is not a network card; it does not have the capability of interfacing the lines cards and a data network; and so it cannot be a "master network card".

Examiner respectfully disagrees with these arguments. It is noted that Moody et al. discloses a

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plurality of line cards (Fig. 2, LINE CARD 1, LINE CARD j) for transceiving information packets and a plurality of switch cards (Fig. 2, NETWORK CARD 1, NETWORK CARD 2, ADMINISTRATION CARD 110) for controlling distribution of the information packets between the line cards (Fig. 2, LINE CARD 1, LINE CARD j), and designating a master switch card (Fig. 2, ADMINISTRATION CARD 110) having a master switch timing reference (Figs. 2 and 3, TIMING). As described on column 3, lines 49-52, "Administration card 110 is responsible for controlling which bus 120₁ or 120₂, which network card 105₁ and 105₂, and which T1 port on the selected network card an intercepted call will travel through DMU 40"; thus, it is clear that the administration card is a Master card for controlling all other network cards and line cards with data bus 120₁, 120₂ and Timing in Fig. 3. Moreover, as described on column 3, lines 63-67, "Administration card 110 supports an ETHERNET connection 111 for communicating with external network management systems as well as accommodating downloads of stored telephone numbers associated with particular ISPs". It is clear that Administration card 110 is a network card that is communicating with **external network** management systems. (Emphasis added).

On page 12, last paragraph, Applicant argues that the description of the administration card omits any mention of a master switch timing reference. Examiner respectfully disagrees with this argument. As described on column 3, lines 49-52, "**Administration card 110 is responsible for controlling which bus 120₁ or 120₂**, which network card 105₁ and 105₂, and which T1 port on the selected network card an intercepted call will travel through DMU 40". (Emphasis added). Moreover, as depicted in Fig. 3, TIMING is transmitted in the bus 120₁ and 120₂ among line cards and network cards depicted in Fig. 2. Therefore, since the bus 120₁ and

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120₂ are controlled by the administration card 110, the TIMING is also controlled by the administration card 110.

On page 13, fourth paragraph, Applicant argues that Moody et al. sets forth a system for operating line cards that is centrally controlled by the administration card; Lee, on the other hand, sets forth a cordless card handover system in which line cards have an explicit master/slave relationship with no central controller; Lee teaches away from being combined with Moody et al. Examiner respectfully disagrees with this argument. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, The reason for combining or modifying can be found in Lee, column 2, lines 5-15, and column 4, lines 58-65.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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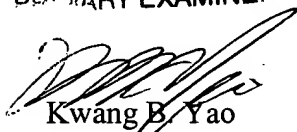
will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kwang B. Yao whose telephone number is 571-272-3182. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H. Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KWANG BIN YAO
PRIMARY EXAMINER



Kwang B. Yao
June 29, 2005